



Operation and Maintenance Manual for Series SRV125F Starter Relay Valve

NOTICE

Series SRV125F Starter Relay valves are designed for controlling fluid flow in conjunction with Air Starting Systems.



WARNING

- **IMPORTANT SAFETY INFORMATION ENCLOSED - SAVE THESE INSTRUCTIONS.**
- **Read and understand this manual before operating Valve.**
- **Failure to observe the following warnings could result in injury.**

PLACING THE VALVE IN SERVICE

- Always install, operate, inspect and maintain this product in accordance with all applicable standards and regulations (local, state, country, federal, etc.).
- Always use clean, dry air at a pressure which does not exceed the pressure rating listed on the valve.
- Do not use damaged, frayed or deteriorated air hoses & fittings.
- Always turn off the air and disconnect the air hose before installing, removing or adjusting any accessory on this valve, or before performing any maintenance on this valve or accessory.
- Do not lubricate the valve with flammable or volatile liquids such as kerosene, diesel or jet fuel, use only recommended lubricants.
- Series SRV125F Valves are not designed for working in explosive atmospheres.
- Do not remove any labels, replace any damaged labels.
- Operate this valve only when properly installed in the Air Starting System.
- Always bleed off the air pressure before attempting to remove the Starter Relay Valve from the Receiver or before attempting to perform any maintenance on the Starter Relay Valve.
- Never attempt to remove the Retaining Ring (12) from the bottom side of the Starter Relay Valve until the air pressure has bled off. If the Retaining Ring is removed while there is pressure in the Receiver, internal parts of the Starter Relay Valve will be blown out with considerable force.
- Use only recommended **Ingersoll-Rand** accessories.

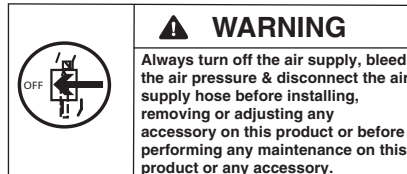
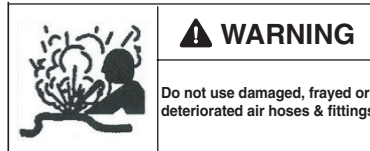
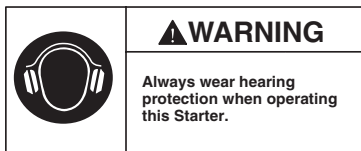
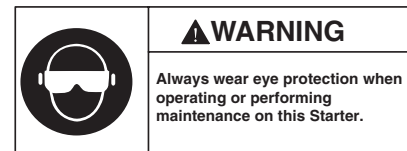
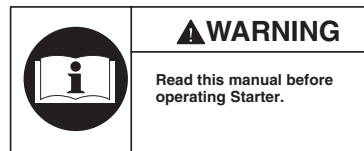
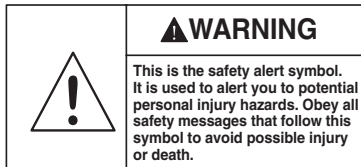
USING THE VALVE

- This product is not designed for working in explosive environments, including those caused by fumes & dust, or near flammable materials.
- This product is not insulated against electric shock.
- Never use a damaged or malfunctioning product or accessory.
- Do not modify this product, safety devices, or accessories.
- Do not use this product for purposes other than those recommended.
- Operate this product only when properly installed in the Air Starting System.
- Use only recommended **Ingersoll-Rand** accessories.

NOTICE

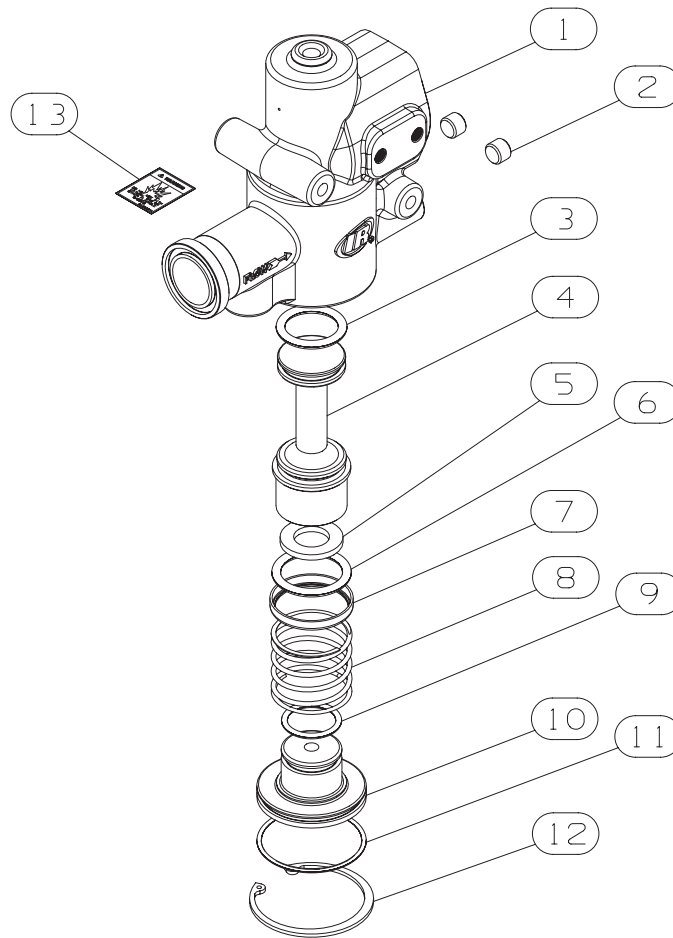
- The use of other than genuine **Ingersoll-Rand** replacement parts may result in safety hazards, decreased starter performance, and increased maintenance, and may invalidate all warranties.
- Repairs should be made only by authorized trained personnel. Consult your nearest **Ingersoll-Rand** Authorized Service Center.
- **Ingersoll-Rand** is not responsible for customer modification of starters for applications on which Ingersoll-Rand was not consulted.
- It is the responsibility of the employer to place the information on this manual in to the hands of the operator.

WARNING SYMBOL IDENTIFICATION



EXPLODED VIEW AND PARTS LIST

SERIES SRV125F STARTER RELAY VALVE



(Dwg. TP2184)



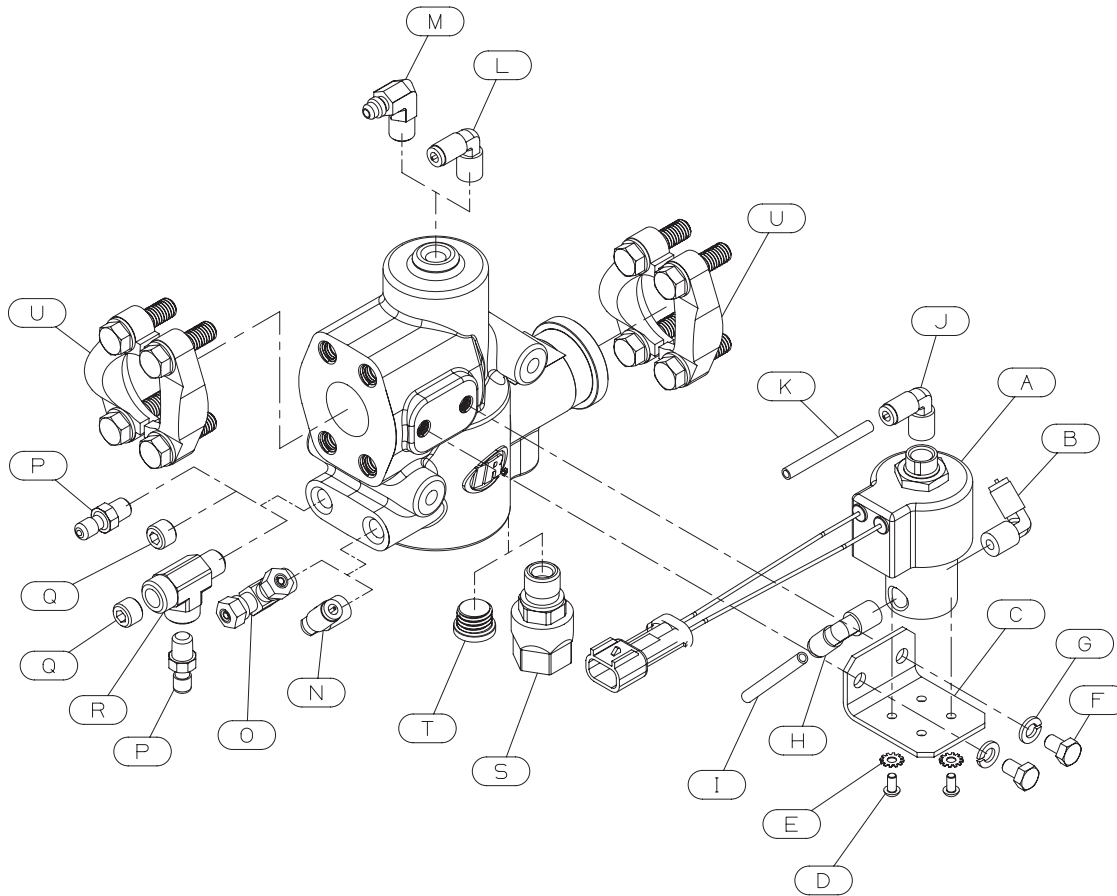
When ordering, use applicable part number

Item	Part Description	Part Number	Item	Part Description	Part Number
1	Valve Housing	SRV125F-40	10	End Plug	SRV150-338
2	Pipe Plug (2 required)	HSPPS-2	11	End Plug Seal O-ring	Y327-143 *
3	Upper Piston O-Ring	SRV150-210 *	12	Retaining Ring	SRV150-340 *
4	Piston	SRV150-246	13	Warning Label	04333274
5	Bumper	SRV150-339 *			
6	Piston O-ring	SRV150-211 *	+	Tune Up Kit	SRV150-TK3
7	O-ring Retainer	SRV150-33 *	+	Pipe Sealant	SMB-441
8	Spring	SRV150-250	+	Grease	SRV-GR55 *
9	End Plug O-ring	SRV150-67 *			

* Indicates parts available in Tune Up Kit

+ Items Not Shown

OPTIONAL EQUIPMENT



(Dwg. TP2212)



When ordering, use applicable part number

Item	Part Description	Part Number	Item	Part Description	Part Number
Solenoid and Mounting Hardware - Position 1			Pilot Port Hardware - Position 2		
A	Solenoid		L	90° Elbow with Push to Lock	EL90-4M4DOT
	12 Volt, Pioneer Connections	150BMP-A1051C	M	90° Elbow with JIC 37°	EL90-4M437M
	12 Volt, Wire Leads	150BMP-1051B	Left and Right Live Air Port hardware - Position 3 and 4		
	12 Volt, Wire Leads	150BMP-2451B	N	90° Elbow with Push to Lock	EL90-4M4DOT
B	90° Elbow with Push to Lock	EL90-4M4DOT	O	T Connection with Push to Lock	150TMP-MRT4M4
C	Solenoid Mounting Bracket	150TMP-2451	P	Schrader Valve	04333654
D	Solenoid Mounting Screw (2)	Y133-105C	Q	1/4" Pipe Plug	HSPPS-2
E	Solenoid Mounting Screw Washer (2)	Y117-110	R	T Fitting with 1/4" NPT	SRV125F-188
F	Solenoid Mounting Bracket Screw (2)	150TMP-128	+	Pressure Gauge	SRV125F-1064
G	Solenoid Mounting Bracket Washer (2)	Y14-516C	Secondary Inlet Port Hardware - Position 5		
H	90° Elbow with Push to Lock	EL90-4M4DOT	S	Check Valve	ST400-1056
I	Connection Hose	150TMP-125	T	Plug	SRV125F-34
J	90° Elbow with Push to Lock	EL90-4M4DOT	U	1-1/4" Flange Kit	ST500-K166
K	Connection Hose	150TMP-125			

(+) Items Not Shown

For Position Coding information refer to Drawing 10554749

PLACING THE STARTER RELAY VALVE IN SERVICE

WARNING

Always wear eye protection when performing any maintenance on this valve.

Pre-Installation

1. Clean the air line, o-ring groove and sealing surfaces to be sure they are free of foreign material.
2. Ensure that enough space is left for removal and service of this valve.
3. Ensure that the air line is suitably aligned and supported to avoid strained joints.
4. Do not over tighten the air line connections.
5. All Starter Relay Valves are to be installed with the Valve in the **vertical** position.

NOTICE

This Starter Relay Valve is specially designed and manufactured by Ingersoll-Rand for use on Starter Installations. Install it in accordance with the following instructions.

Installation

1. Place the O-Ring supplied with the flange fitting into the groove on the Starter Relay Valve.
2. Mount the Starter Relay Valve to the tank using ST500-K166 Flange Assembly. The air flow arrow must point toward the starter.
3. Check the O-Ring to see that it properly seated in the groove to prevent cutting.
4. Push the two clamp halves inward as far as they will go.
5. Tighten the four flange bolts in an alternating pattern to 35-45 ft-lbs (47-61Nm) torque.
6. Attach the air hose from the outlet side of a 3-way normally vented Control Valve to the small tapped hole in the top of the Starter Relay Valve. Use SMB-441 Ingersoll-Rand Sealant on the male thread.

WARNING

Always wear eye protection when lubricating or performing maintenance on the Starter Relay Valve. Always bleed off the air pressure before lubricating or performing any maintenance on the Starter Relay Valve.

Lubrication

Periodically lubricate the Starter Relay Valve as follows:

1. Bleed off the air pressure.
2. Disconnect the No. 4 Hose from the tank at the control air supply port near the bottom of the Starter Relay Valve opposite the air inlet. In some installations, this ¼" N.P.T. will be plugged.
3. Remove the plug. Squirt approximately 1 ounce (30 cc) of 10W oil into the Starter Relay Valve through the hose plug opening.
4. Reconnect the hose or reinstall the plug.

NOTICE

No. SRV150-TK3 Tune Up Kit is available for maintaining the Starter Relay Valve. This Tune Up Kit includes all O-Rings (3,6,9,11), Bumper (5), O-Ring Retainer (7), End Plug Retaining Ring (12) and Grease.

Installation of the Tune Up Kit

Disassembly of the Starter Relay Valve

1. Bleed off the air pressure.
2. Clamp the Starter Relay Valve in a vise with the Retaining Ring (12) facing up.
3. Carefully remove the Retaining Ring. The End Plug (10) should spring out. If it does not, tap the Valve Housing (1) lightly with a soft hammer until the End Plug springs out.
4. Remove the End Plug, Spring (8), and Piston Assembly (4).
5. Remove and discard all of the used O-Rings and the Bumper (5).
6. Clean all other parts in a clean, suitable cleaning solution in a well ventilated area.

Assembly of the Starter Relay Valve

1. Using O-Ring lubricant, lubricate and install the new Piston O-Ring (6) and the new Upper Piston O-Ring (3) on the Piston (4).

NOTICE

The Upper Piston O-Ring (3) is slightly larger in diameter than the End Plug O-Ring (9).

2. Turn the Piston over and install the new Bumper (5).
3. Using O-Ring lubricant, lubricate and install the new End Plug Seal O-Ring (11) and the new End Plug O-Ring (9) on the End Plug (10).
4. Lubricate the lower small bore of the Valve Housing (1) with O-ring lubricant.
5. Insert the Piston Assembly into the Valve Housing until the Piston O-Ring (6) seats against the beveled face.
6. Install the O-Ring Retainer (7) with the large opening over the Piston O-Ring.
7. Place the Piston Spring (8) on the Piston.
8. Place the End Plug Assembly on the Piston Spring.
9. Using a press to hold down the End Plug Assembly, install the End Plug Retaining Ring (12).

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